

=====

Sequence Listing was accepted.

See attached Validation Report.

If you need help call the Patent Electronic Business Center at (866)
217-9197 (toll free).

Reviewer: Keisha Douglas

Timestamp: [year=2009; month=2; day=11; hr=16; min=48; sec=0; ms=215;]

=====

Application No: 10566540

Version No: 1.0

Input Set:

Output Set:

Started: 2009-01-23 12:49:33.770

Finished: 2009-01-23 12:49:35.952

Elapsed: 0 hr(s) 0 min(s) 2 sec(s) 182 ms

Total Warnings: 27

Total Errors: 1

No. of SeqIDs Defined: 35

Actual SeqID Count: 35

Error code	Error Description
E 201	Mandatory field data missing in <141>
W 213	Artificial or Unknown found in <213> in SEQ ID (6)
W 213	Artificial or Unknown found in <213> in SEQ ID (7)
W 213	Artificial or Unknown found in <213> in SEQ ID (8)
W 213	Artificial or Unknown found in <213> in SEQ ID (9)
W 213	Artificial or Unknown found in <213> in SEQ ID (10)
W 213	Artificial or Unknown found in <213> in SEQ ID (11)
W 402	Undefined organism found in <213> in SEQ ID (15)
W 402	Undefined organism found in <213> in SEQ ID (16)
W 402	Undefined organism found in <213> in SEQ ID (17)
W 213	Artificial or Unknown found in <213> in SEQ ID (18)
W 213	Artificial or Unknown found in <213> in SEQ ID (19)
W 213	Artificial or Unknown found in <213> in SEQ ID (20)
W 213	Artificial or Unknown found in <213> in SEQ ID (21)
W 213	Artificial or Unknown found in <213> in SEQ ID (22)
W 213	Artificial or Unknown found in <213> in SEQ ID (23)
W 213	Artificial or Unknown found in <213> in SEQ ID (24)
W 213	Artificial or Unknown found in <213> in SEQ ID (25)
W 213	Artificial or Unknown found in <213> in SEQ ID (26)
W 213	Artificial or Unknown found in <213> in SEQ ID (27)

Input Set:

Output Set:

Started: 2009-01-23 12:49:33.770
Finished: 2009-01-23 12:49:35.952
Elapsed: 0 hr(s) 0 min(s) 2 sec(s) 182 ms
Total Warnings: 27
Total Errors: 1
No. of SeqIDs Defined: 35
Actual SeqID Count: 35

Error code	Error Description
W 213	Artificial or Unknown found in <213> in SEQ ID (28)
W 213	Artificial or Unknown found in <213> in SEQ ID (29)
W 213	Artificial or Unknown found in <213> in SEQ ID (30)
W 213	Artificial or Unknown found in <213> in SEQ ID (31) This error has occurred more than 20 times, will not be displayed

SEQUENCE LISTING

<110> The Government of the United States of America, as
represented by the Secretary, Department of Health and Human
Services, Office of Technology Transfer, National Institutes of
Health
Becerra, S. Patricia
Notari, Luigi
Laborda, Jorge
Martinez, Julio Escribano

<120> PEDF-R RECEPTOR AND USES

<130> NIHA-0238

<140> 10566540
<141> 2009-01-23

<150> PCT/US2004/025560
<151> 2004-08-05

<150> US 60/579,177
<151> 2004-06-12

<150> US 60/493,713
<151> 2003-08-07

<160> 35

<170> PatentIn version 3.5

<210> 1
<211> 2122
<212> DNA
<213> Homo sapiens

<400> 1
ggcacgaggcg cgccccagtc cagacgcagg cagccccaaa gcctgaacag gcagggccag 60
accagcttc ttgcctccg ccagcgggga ccccgagcta gagccgcagc gggacctgcc 120
cgcccccccg ctccagcgag cgagcggcga gcaggcggct cacagaggcc tggccgcca 180
cggaaccgcg ggcccggcg cgcgcgcgc gatgtttccc cgcgagaaga cgtggaacat 240
ctcgttcgcg ggctgcggct tcctcggcgt ctactacgtc ggcgtggcct cctgcctccg 300
cgagcacgcg ccttctctgg tgccaacgc cagcacatc tacggcgct cggccggggc 360
gctcacggcc acggcgctgg tcaccggggt ctgcctgggt gaggtggtg ccaagttcat 420
tgaggtatct aaagaggccc ggaagcggtt cctgggcccc ctgcacccct cttcaacct 480
ggtaaagatc atccgcagtt tcctgctgaa ggtcctgcct gctgatagcc atgagcatgc 540
cagtgggcgc ctgggcatct cctgacccg cgtgtcagac ggcgagaatg tcattatatc 600

ccacttcaac	tccaaggacg	agctcatcca	ggccaatgtc	tgcagcgggt	tcacccccgt	660
gtactgtggg	ctcatccctc	cctccctcca	gggggtgcgc	tacgtggatg	gtggcatttc	720
agacaacctg	ccactctatg	agcttaagaa	caccatcaca	gtgtccccct	tctcggggcga	780
gagtgcacatc	tgtecgagc	acagctccac	caacatccac	gagctgcggg	tcaccaaacac	840
cagcatccag	ttcaacctgc	gcaacctcta	ccgcctctcc	aaggccctct	tcccgcggga	900
gcccctggtg	ctgcgagaga	tgtgcaagca	gggataccgg	gatggcctgc	gctttctgca	960
gcggaacggc	ctctgaacc	ggcccaaccc	cttgctggcg	ttgccccccg	ccgccccca	1020
cggcccagag	gacaaggacc	aggcagtggg	gagcgcctaa	gcggaggatt	actcgcagct	1080
gccgggagaa	gatcacatcc	tggagcacct	gccgcgccgg	ctcaatgagg	ccctgctgga	1140
ggcctgcgtg	gagcccacgg	acctgctgac	caccctctcc	aacatgctgc	ctgtgcgtct	1200
ggccacggcc	atgatgggtg	cctacacgct	gccgctggag	agcgtctgtg	ccttcaccat	1260
ccgcttgctg	gagtggctgc	ccgacgttcc	cgaggacatc	cggtggatga	aggagcagac	1320
gggcagcatc	tgccagtacc	tggatgatgc	cgccaagagg	aagctgggca	ggcacctgcc	1380
ctccaggctg	cggagcagg	tggagctgcg	ccgcgtccag	tcgtgccgt	ccgtgccgt	1440
gtcctgcgcc	gcctacagag	aggcaactgcc	cggtggatg	cgcaacaacc	tctcgctggg	1500
ggacgcgctg	gccaagtggg	aggagtgcc	gcgccagctg	ctgctcggcc	tcttctgcac	1560
caacgtggcc	tcccgcgccg	aaactctgcg	catgcgcgca	cccgcgcacc	cggtcccgcc	1620
ccccgcggac	ccagcatccc	cgcagcacca	gctggccggg	cctgccccct	tgctgagcac	1680
ccctgctccc	gagggccggc	ccgtgatcgg	ggccctgggg	ctgtgagacc	ccgaccctct	1740
cgaggaaccc	tgctgagac	gcctccatta	ccactgcgca	gtgagatgag	gggactcaca	1800
gttgccaaga	ggggctctttg	ccgtggggcc	cctcgccagc	cactcaccag	ctgcatgcac	1860
tgagagggga	ggtttccaca	ccccctccc	gggccgctga	ggccccgcgc	acctgtgcct	1920
taatcttccc	tcccctgtgc	tgcccagagca	cctccccgcg	ccctttactc	ctgagaactt	1980
tgcagctgcc	cttccctccc	cgtttttcat	ggcctgctga	aatatgtgtg	tgaagaatta	2040
tttattttcg	ccaaagcaca	tgtaataaat	gctgcagccc	aaaaaaaaaa	aaaaaaaaaa	2100
aaaaaaaaaa	aaaaaaaaaa	aa				2122

<210> 2
 <211> 1515
 <212> DNA

<213> Homo sapiens

<400> 2

atgtttcccc gcgagaagac gtggaacatc tcgttcgcgg gctgcggctt cctcggcgtc	60
tactacgtcg gcgtaggctc ctgcctccgc gagcacgcgc ccttcctggt ggccaacgcc	120
acgcacatct acggcgccctc ggccggggcg ctcacggcca cggcgctggt caccggggtc	180
tgcttgggtg aggttgggtg caagttcatt gaggtatcta aagaggcccg gaagcgggtc	240
ctggggcccc tgcacccctc cttcaacctg gtaaagatca tccgcagttt cctgctgaag	300
gtcctgcctg ctgatagcca tgagcatgcc agtgggcgcc tgggcatctc cctgacccgc	360
gtgtcagacg gcgagaatgt cattatatcc cacttcaact ccaaggacga gctcatccag	420
gccaatgtct gcagcgggtt catccccgtg tactgtgggc tcatccctcc ctccctccag	480
ggggtgcgct acgtggatgg tggcatttca gacaacctgc cactctatga gcttaagaac	540
accatcacag tgtccccctt ctggggcgag agtgacatct gtccgcagga cagctccacc	600
aacatccacg agctgcgggt caccaacacc agcatccagt tcaacctgcg caacctctac	660
cgctctcca aggcctctt cccgcggag ccctgggtgc tgcgagagat gtgcaagcag	720
ggataccggg atggcctgcg ctttctgcag cggaacggcc tcctgaaccg gcccaacccc	780
ttgctggcgt tgcacccgc cgcacccac ggccagagg acaaggacca ggcagtggag	840
agcgcccaag cggaggatta ctgcgactg ccgggagaag atcacatcct ggagcacctg	900
ccgcgccggc tcaatgaggc cctgctggag gcctgcgtgg agccacgga cctgctgacc	960
accctctcca acatgctgcc tgtgcgtctg gccacggcca tgatggtgcc ctacacgtg	1020
ccgctggaga gcgtctgtc cttcaccatc cgcttgcgtg agtggctgcc cgacgttccc	1080
gaggacatcc ggtggatgaa ggagcagacg ggcagcatct gccagtacct ggtgatgcgc	1140
gccaaagagga agctgggcag gcacctgcc tccaggtgc cggagcaggt ggagctgcgc	1200
cgcgtccagt cgtgcgcgtc cgtgcgcgtg tcctgcgcgc cctacagaga ggcactgcc	1260
ggctggatgc gcaacaacct ctgcgtggg gacgcgtgg ccaagtggga ggagtgccag	1320
cgcagctgc tgcctggcct cttctgcacc aacgtggcct tccgcgccga agctctgcgc	1380
atgcgcgcac ccgcgaccc ggtcccgcc cccgcggacc cagcatcccc gcagcaccag	1440
ctggccgggc ctgcacccct gctgagcacc cctgctcccg agggccggcc cgtgatcggg	1500
gcctggggc tgtga	1515

<210> 3

<211> 504
<212> PRT
<213> Homo sapiens

<400> 3

Met Phe Pro Arg Glu Lys Thr Trp Asn Ile Ser Phe Ala Gly Cys Gly
1 5 10 15

Phe Leu Gly Val Tyr Tyr Val Gly Val Ala Ser Cys Leu Arg Glu His
20 25 30

Ala Pro Phe Leu Val Ala Asn Ala Thr His Ile Tyr Gly Ala Ser Ala
35 40 45

Gly Ala Leu Thr Ala Thr Ala Leu Val Thr Gly Val Cys Leu Gly Glu
50 55 60

Ala Gly Ala Lys Phe Ile Glu Val Ser Lys Glu Ala Arg Lys Arg Phe
65 70 75 80

Leu Gly Pro Leu His Pro Ser Phe Asn Leu Val Lys Ile Ile Arg Ser
85 90 95

Phe Leu Leu Lys Val Leu Pro Ala Asp Ser His Glu His Ala Ser Gly
100 105 110

Arg Leu Gly Ile Ser Leu Thr Arg Val Ser Asp Gly Glu Asn Val Ile
115 120 125

Ile Ser His Phe Asn Ser Lys Asp Glu Leu Ile Gln Ala Asn Val Cys
130 135 140

Ser Gly Phe Ile Pro Val Tyr Cys Gly Leu Ile Pro Pro Ser Leu Gln
145 150 155 160

Gly Val Arg Tyr Val Asp Gly Gly Ile Ser Asp Asn Leu Pro Leu Tyr
165 170 175

Glu Leu Lys Asn Thr Ile Thr Val Ser Pro Phe Ser Gly Glu Ser Asp
180 185 190

Ile Cys Pro Gln Asp Ser Ser Thr Asn Ile His Glu Leu Arg Val Thr
195 200 205

Asn Thr Ser Ile Gln Phe	Asn Leu Arg Asn Leu Tyr Arg Leu Ser Lys
210	215 220
Ala Leu Phe Pro Pro Glu Pro Leu Val Leu Arg Glu Met Cys Lys Gln	
225	230 235 240
Gly Tyr Arg Asp Gly Leu Arg Phe Leu Gln Arg Asn Gly Leu Leu Asn	
245	250 255
Arg Pro Asn Pro Leu Leu Ala Leu Pro Pro Ala Arg Pro His Gly Pro	
260	265 270
Glu Asp Lys Asp Gln Ala Val Glu Ser Ala Gln Ala Glu Asp Tyr Ser	
275	280 285
Gln Leu Pro Gly Glu Asp His Ile Leu Glu His Leu Pro Ala Arg Leu	
290	295 300
Asn Glu Ala Leu Leu Glu Ala Cys Val Glu Pro Thr Asp Leu Leu Thr	
305	310 315 320
Thr Leu Ser Asn Met Leu Pro Val Arg Leu Ala Thr Ala Met Met Val	
325	330 335
Pro Tyr Thr Leu Pro Leu Glu Ser Ala Leu Ser Phe Thr Ile Arg Leu	
340	345 350
Leu Glu Trp Leu Pro Asp Val Pro Glu Asp Ile Arg Trp Met Lys Glu	
355	360 365
Gln Thr Gly Ser Ile Cys Gln Tyr Leu Val Met Arg Ala Lys Arg Lys	
370	375 380
Leu Gly Arg His Leu Pro Ser Arg Leu Pro Glu Gln Val Glu Leu Arg	
385	390 395 400
Arg Val Gln Ser Leu Pro Ser Val Pro Leu Ser Cys Ala Ala Tyr Arg	
405	410 415
Glu Ala Leu Pro Gly Trp Met Arg Asn Asn Leu Ser Leu Gly Asp Ala	
420	425 430

Leu Ala Lys Trp Glu Glu Cys Gln Arg Gln Leu Leu Leu Gly Leu Phe
435 440 445

Cys Thr Asn Val Ala Phe Pro Pro Glu Ala Leu Arg Met Arg Ala Pro
450 455 460

Ala Asp Pro Ala Pro Ala Pro Ala Asp Pro Ala Ser Pro Gln His Gln
465 470 475 480

Leu Ala Gly Pro Ala Pro Leu Leu Ser Thr Pro Ala Pro Glu Ala Arg
485 490 495

Pro Val Ile Gly Ala Leu Gly Leu
500

<210> 4
<211> 404
<212> DNA
<213> Homo sapiens

<400> 4
cagcggaacg gcctcctgaa ccggcccaac cccttgctgg cgttgcccc cgcccgcccc 60
cacggcccag aggacaagga ccaggcagtg gagagcgcgc aagcggagga ttactcgcag 120
ctgccgggag aagatcacat cctggagcac ctgcccgcgc ggctcaatga ggccctgctg 180
gaggcctgcg tggagcccac ggacctgctg accaccctct ccaacatgct gcctgtgcgt 240
ctggccacgg ccatgatggg gccctacacg ctgccgctgg agagcgctct gtccttcacc 300
atccgcttgc tggagtggct gcccgcggtt cccgaggaca tccggtggat gaaggagcag 360
acgggcagca tctgccagta cctggtgatg cgcgccaaga ggaa 404

<210> 5
<211> 134
<212> PRT
<213> Homo sapiens

<400> 5

Gln Arg Asn Gly Leu Leu Asn Arg Pro Asn Pro Leu Leu Ala Leu Pro
1 5 10 15

Pro Ala Arg Pro His Gly Pro Glu Asp Lys Asp Gln Ala Val Glu Ser
20 25 30

Ala Gln Ala Glu Asp Tyr Ser Gln Leu Pro Gly Glu Asp His Ile Leu

35

40

45

Glu His Leu Pro Ala Arg Leu Asn Glu Ala Leu Leu Glu Ala Cys Val
50 55 60

Glu Pro Thr Asp Leu Leu Thr Thr Leu Ser Asn Met Leu Pro Val Arg
65 70 75 80

Leu Ala Thr Ala Met Met Val Pro Tyr Thr Leu Pro Leu Glu Ser Ala
85 90 95

Leu Ser Phe Thr Ile Arg Leu Leu Glu Trp Leu Pro Asp Val Pro Glu
100 105 110

Asp Ile Arg Trp Met Lys Glu Gln Thr Gly Ser Ile Cys Gln Tyr Leu
115 120 125

Val Met Arg Ala Lys Arg
130

<210> 6

<211> 29

<212> DNA

<213> Artificial

<220>

<223> Primer 1 for the construction of p12

<400> 6

caccatgcag cggaacggcc tcctgaacc

29

<210> 7

<211> 25

<212> DNA

<213> Artificial

<220>

<223> Primer 2 for the construction of p12

<400> 7

ctagttcctc ttggcgcgca tcacc

25

<210> 8

<211> 22

<212> DNA

<213> Artificial

<220>

<223> Primer 3 for the construction of p12

<400> 8
gttcctcttg gcgcgcatca cc 22

<210> 9
<211> 25
<212> DNA
<213> Artificial

<220>
<223> Primer 11 for the construction of R1 expression vectors

<400> 9
ccacatgttt ccccgcgaga agacg 25

<210> 10
<211> 25
<212> DNA
<213> Artificial

<220>
<223> Primer 12 for the construction of R1 expression vectors

<400> 10
ctacagcccc agggccccga tcacg 25

<210> 11
<211> 22
<212> DNA
<213> Artificial

<220>
<223> Primer 13 for the construction of R1 expression vectors

<400> 11
cagccccagg gccccgatca cg 22

<210> 12
<211> 1965
<212> DNA
<213> Mus musculus

<400> 12
ggagacccca aggtatcgag actgcgggac cactgcccc caggacatcg agtcacgatg 60
ttcccgaggg agaccaagtg gaacatctca ttcgctggct gcggcttctt cggggtctac 120
cacattggcg tggcctcttg cctccgtgag cacgcgcctt tctggtggc caacgccact 180
cacatctacg gagcctcggc aggggcgctc accgccacag cgctggtcac tggggcctgc 240
ctgggtgaag caggtgccaa cattattgag gtgtccaagg agggccggaa gcggttcttg 300

ggtcctctgc atccctcctt caacctggtg aagaccatcc gtggctgtct actaaagacc	360
ctgcctgctg attgccatga gcgcgccaat ggacgcctgg gcatctccct gactcgtgtt	420
tcagacggag agaacgtcat catatcccac tttagctcca aggatgagct catccaggcc	480
aatgtctgca gcacatttat cccggtgtac tgtggcctca ttcttcctac cctccaaggg	540
gtgcgctatg tggatggcgg catttcagac aacttgccac tttatgagct gaagaatacc	600
atcacagtgt cccatttctc aggcgagagt gacatctgcc ctcaggacag ctccaccaac	660
atccacgagc ttgcgctcac caacaccagc atccagttca accttcgcaa tctctaccgc	720
ctctcgaagg ctctcttccc gccagagccc atggtcctcc gagagatgtg caaacagggc	780
tacagagatg gacttcgatt ccttaggagg aatggcctac tgaaccaacc caacccttg	840
ctggcactgc cccagttgt cccccaggaa gaggatgcag aggaagctgc tgtggtggag	900
gagagggctg gagaggagga tcaattgcag ccttatagaa aagatcgaat tctagagcac	960
ctgcctgcc a gactcaatga ggccctgctg gaggcctgtg tggaaacaaa ggacctgatg	1020
accacccttt ccaacatgct accagtgcgc ctggcaacgg ccatgatggg gccctatact	1080
ctgccgctgg agagtgcagt gtccttcacc atccgcttgt tggagtggct gcctgatgtc	1140
cctgaagata tccggtggat gaaagagcag acgggtagca tctgccagta tctggtgatg	1200
agggccaaga ggaaattggg tgaccatctg ccttcagac tgtctgagca ggtggaactg	1260
cgacgtgccc agtctctgcc ctctgtgcca ctgtcttgcg ccacctacag tgaggcccta	1320
cccaactggg tacgaaacaa cctctcactg ggggacgcgc tggccaagtg ggaagaatgc	1380
cagcgtcagc tactgctggg tctcttctgc accaatgtgg ccttcccgc ggatgccttg	1440
cgcattgcgc cacctgccag cccactgcc gcagatcctg ccacccaca ggatccacct	1500
ggcctccgc cttgctgaga atcaccattc ccacatcgcc cggtaccag ccaagctcca	1560
agttgtcttg cccactaag aggagccccg gggtggaaca agatcctgtc tgccccggt	1620
ctccccctta catgctgtgg aatgaggaca taggacctg cacagctgca agtgggcttt	1680
cgatgtgaaa cctttacca gccactcact atgctactcc tggtggggag ggatggggag	1740
tcgcctccc cggagccca cagagccctc ccccgtcacg tcacctgtgc cttactcctg	1800
cccaccacct tttcagtgca gggtcagtct taagaactcc acatctgtg ctgctccctg	1860
gtgtccaagt ttcttgacg agtgtgtgaa gaattattta tttttgcaa agcagatcta	1920
ataaaagcca cagctcagct tctgccttcc tcacttctgc atgct	1965

<210> 13
<211> 1461
<212> DNA
<213> Mus musculus

<400> 13
atgttcccga gggagaccaa gtggaacatc tcattcgetg gctgcggett cctcggggtc 60

taccacattg gcgtggcctc ctgcctccgt gagcacgcgc ccttcctggt ggccaacgcc 120

actcacatct acggagcctc ggcaggggcg ctcaccgcca cagcgtggt cactggggcc 180

tgctgggtg aagcaggtgc caacattatt gaggtgtcca aggaggcccg gaagcggttc 240

ctgggtcctc tgcatecctc cttcaacctg gtgaagacca tccgtggetg tctactaaag 300

accctgcctg ctgattgcca tgagcgcgcc aatggacgcc tgggcatctc cctgactcgt 360

gtttcagacg gagagaacgt catcatatcc cactttagct ccaaggatga gctcatccag 420

gccaatgtct gcagcacatt tatcccgtg tactgtggcc tcattcctcc taccctcaa 480

ggggtgcgct atgtggatgg cggcatttca gacaacttgc cactttatga gctgaagaat 540

accatcacag tgtccccatt ctcaggcgag agtgacatct gccctcagga cagctccacc 600

aacatccacg agcttcgcgt caccaacacc agcatccagt tcaaccttcg caatctctac 660

cgctctcga aggtctctct cccgccagag cccatggctc tccgagagat gtgcaaacag 720

ggctacagag atggacttcg attccttagg aggaatggcc tactgaacca acccaaccct 780

ttgctggcac tgccccagt tgccccag gaagaggatg cagaggaagc tgctgtggtg 840

gaggagaggg ctggagagga ggatcaattg cagccttata gaaaagatcg aattctagag 900

cacctgcctg ccagactcaa tgaggccctg ctggaggcct gtgtggaacc aaaggacctg 960

atgaccaccc tttccaacat gctaccagtg cgcttgcaa cggccatgat ggtgccctat 1020

actctgccgc tggagagtgc agtgccttc accatccgct tgttgagtg gctgcctgat 1080

gtccctgaag atatccgtg gatgaaagag cagacgggta gcatctgcca gtatctggtg 1140

atgagggccca agaggaaatt gggtgaccat ctgccttcca gactgtctga gcaggtggaa 1200

ctgcgacgtg cccagtctct gccctctgtg ccaactgtctt gcgccaccta cagtgaggcc 1260

ctacceaaact gggtagcaaa caacctctca ctgggggacg cgtgggcaa gtgggaagaa 1320

tgccagcgtc agctactgct ggggtctcttc tgcaccaatg tggccttccc gccggatgcc 1380

ttgcgcatgc gcgcacctgc cagccccact gccgcagatc ctgccacccc acaggatcca 1440

cctggcctcc cgcttgctg a 1461

<210> 14
<211> 486
<212> PRT
<213> Mus musculus

<400> 14

Met Phe Pro Arg Glu Thr Lys Trp Asn Ile Ser Phe Ala Gly Cys Gly
1 5 10 15

Phe Leu Gly Val Tyr His Ile Gly Val Ala Ser Cys Leu Arg Glu His
20 25 30